

Adult E-Poster

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PLASMAPHERESIS FOR THYROTOXICOSIS: EXPERIENCE FROM A MALAYSIAN ACADEMIC MEDICAL CENTRE

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INTRODUCTION

Plasmapheresis is a therapeutic option for patients with severe thyrotoxicosis as a bridging therapy to urgent thyroidectomy, or when conventional antithyroid medications are ineffective, contraindicated, or cause adverse reactions. This retrospective study aims to describe the indications of plasmapheresis, clinical outcomes, and the periprocedural thyroid hormone level changes among patients with thyrotoxicosis in our local setting.

METHODOLOGY

Electronic medical records of all patients who required plasmapheresis in thyrotoxicosis for various indications at Universiti Malaya Medical Centre from April 2022 to April 2025 were reviewed. Clinical outcomes were recorded, and periprocedural FT4 levels were tabulated.

RESULT

There was a total of 11 patients in the study – nine (81.82%) were females, with a mean age of 49.9 ± 22.2 years. Only five (45.45%) fulfilled criteria for thyroid storm, whereas four (36.36%) required urgent thyroidectomy for other reasons, two (18.18%) required urgent reversal of thyrotoxicosis for other surgeries. Five (45.45%) patients died - three of whom were due to thyroid storm, and two due to other concurrent acute illnesses. Four (36.36%) patients developed periprocedural complications including allergic reaction and tachyarrhythmias. Overall, each patient underwent an average of 3.72 ± 2.33 cycles of plasmapheresis, whereas the survivors required 4.17 ± 3.13 cycles to achieve their therapeutic goals. All patients used fresh frozen plasma for exchange, with an average of 1.3 ± 0.3 times total plasma volume. Over 33 cycles in between all patients, the average reduction of FT4 per liter of plasma exchanged was 2.26 ± 5.09 pmol/L, and the average percentage reduction of FT4 after each treatment was 11.0 ± 28.1 %.

CONCLUSION

Patients in thyrotoxicosis who require plasmapheresis usually have complex or severe diseases. Apart from

currently recognised indications, another indication would be patients who require urgent lowering of thyrotoxicosis for other interventional procedures. There is a need for standardization of care to facilitate early recognition and timely implementation of this life-saving procedure.

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VITAMIN D TESTING IN ADULT PATIENTS: AN AUDIT IN HOSPITAL TELUK INTAN

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INTRODUCTION

Vitamin D deficiency is a prevalent condition associated with various health issues, including osteoporosis, fractures, metabolic disorders, and electrolyte imbalances like hypocalcemia. Despite its clinical importance, Vitamin D testing in Hospital Teluk Intan (HTI) is limited, requiring samples to be outsourced to Hospital Raja Permaisuri Bainun, with a turnaround time of approximately one week. This audit aims to assess the number of tests conducted, Vitamin D level distribution, and clinical indications for testing.

METHODOLOGY

This retrospective audit reviewed Vitamin D tests performed from January to December 2024. Adult patients (≥ 18 years) with completed test records were included, while pediatric patients and incomplete records were excluded. Data were collected from laboratory reports and clinical records.

RESULT

A total of 28 adult tests were conducted, with 24 females and 4 males. Among these, 75% were deficient (< 50 ng/mL), 10.7% insufficient (50–74 ng/mL), and 14.3% sufficient (> 75 ng/mL). The main clinical indications for testing were osteoporosis, rheumatoid arthritis, and thalassemia. Rheumatology had the highest test requests, followed by orthopedics and general medicine.

CONCLUSION

The audit highlights a low number of Vitamin D tests, with a high deficiency rate among patients. Limited test availability and delayed results may contribute to underdiagnosis. Raising awareness among healthcare providers, expanding test access, and integrating Vitamin D screening into routine care for high-risk patients could improve outcomes.